



**GlobalData»**  
PharmaPoint

**ATACAND (CHRONIC HEART FAILURE) –  
FORECAST AND MARKET ANALYSIS TO 2022**

## Executive Summary

Atacand (candesartan): Key Metrics in the Seven Major Pharmaceutical Markets*	
<b>2012 Market Sales</b>	
US - Atacand	\$49.7m
5EU - Atacand	\$19.2m
Japan - Atacand	\$72.2m
<b>Total - Atacand</b>	<b>\$141.1m</b>
<b>Key Events (2012–2022)</b>	
Atacand's patent expired in 2012	↓↓↓
Launch of LCZ-696	↓↓
<b>2022 Market Sales</b>	
US - Atacand	\$9.1m
5EU - Atacand	\$2.0m
Japan - Atacand	\$36.0m
<b>Total - Atacand</b>	<b>\$47.1m</b>
Source: GlobalData	
*7MM = US, 5EU (France, Germany, Italy, Spain, UK), and Japan	
EU = European Union	
The values listed in this table have been rounded to the nearest decimal; totals were derived from the rounded numbers.	

### Sales of Atacand in the Global Chronic Heart Failure Market

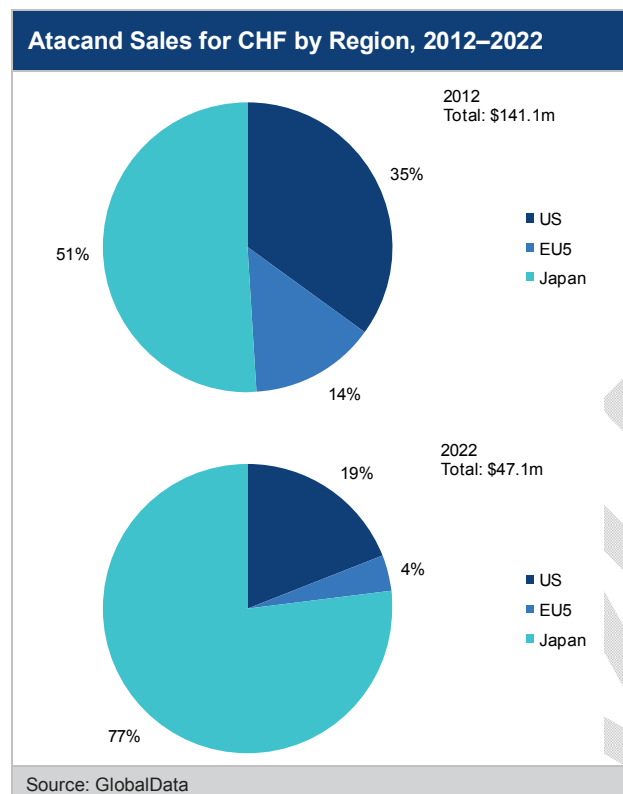
Sales of Atacand is expected to decline from \$141.1m in 2012 to \$47.1m in 2022 at a negative compound annual growth rate (CAGR) of 10.4%.

Major barriers that will restrict growth of Atacand sales over this forecast period include:

- Competition from LCZ-696 which is expected to be launch in 2015
- Launch of generic candesartan in Europe in 2012 and the US in 2013.

## Executive Summary

The below figure illustrates the sales for Atacand in the seven major markets (US, 5EU, and Japan) during the forecast period.



### What Do the Physicians Think?

Physician experts interviewed by GlobalData acknowledged that LCZ-696 could change the treatment paradigm for CHF if it shows significantly superior efficacy to ACE inhibitors in its ongoing trials. However, if LCZ-696 shows similar efficacy to ACE inhibitors, it is unlikely to have a significant impact on the CHF market. Although Phase II trials of LCZ-696 did not raise any safety concerns, one physician pointed out the risk of heightened adverse effects due to its dual action.

*“The objective of the currently-running trial [for LCZ-696] is to see whether we can replace ACE inhibitors, which is one of the pillars, one of those foundations, of the pharmacological treatment of heart failure. That trial is a head-to-head trial of LCZ-696 versus the gold-standard ACE inhibitor treatment [enalapril]. So, if LCZ-696 were to be significantly superior to enalapril, then it would potentially replace ACE inhibitors and other key drugs [ARBs, MRAs, beta blockers]. So, absolutely, yes, of course, it could be at a very important position in the guideline. It could be right at the top where you start.”*

*Key opinion leader, January 2013*

## Executive Summary

*"I am skeptical about the dual blockade because dual blockade in the RAAS [renin-angiotensin-aldosterone] system does not really have convincing data. If you combine drugs that may induce hypotension, it may not be beneficial; in fact, it may be risky for the patients. So, the ongoing trial results need to show that this combination will provide benefit for the patient."*

*Key opinion leader, January 2013*

As indicated in the published treatment guidelines, all interviewed key opinion leaders (KOLs) agree that ACE inhibitors and beta blockers are the current standard care of therapy in CHF, and are likely to remain so during the next 10 years.

*"According to the guidelines, everyone should be started with an ACE inhibitor and a beta blocker. The order is usually...to start with an ACE, reach a reasonable dose, then start a beta blocker and up-titrate. The order of this — which one to use first — is debated. A couple of trials looked at it and said it is clear now that it doesn't matter which one we use first. But because the trials for ACE inhibitors were done first, and those with beta blockers later, the convention is you start someone who comes in untreated with an ACE inhibitor for [a] few weeks, build up the dose to a middle region, and then start a beta blocker and then up-titrate it."*

*Key opinion leader, January 2013*

Interviewed KOLs also indicated that MRAs are used more frequently in Europe than in the US for CHF treatment, and they anticipate that the use of MRAs will increase in the US and Japan during the forecast period.

*"Mineralocorticoid receptor antagonists, even in 2012, are used much less in the US and Canada than they are in Europe and Latin America. That is because among some physicians, they have a bad reputation in the US and Canada, in terms of safety. Whereas in Eastern, Central, and Southern Europe, physicians use mineralocorticoid receptor antagonists very widely and very happily."*

*Key opinion leader, January 2013*

## Table of Contents

**1 Table of Contents**

<b>1 Table of Contents .....</b>	<b>5</b>
1.1 List of Tables .....	8
1.2 List of Figures .....	8
<b>2 Introduction .....</b>	<b>9</b>
2.1 Catalyst .....	9
2.2 Related Reports .....	9
2.3 Upcoming Related Reports .....	9
<b>3 Disease Overview .....</b>	<b>11</b>
3.1 Etiology and Pathophysiology .....	11
3.1.1 Etiology .....	11
3.1.2 Pathophysiology .....	13
3.2 Prognosis .....	17
3.3 Quality of Life .....	17
3.4 Symptoms .....	18
<b>4 Disease Management .....</b>	<b>20</b>
4.1 Treatment Overview .....	21
4.1.1 Pharmacological Treatments .....	23
4.1.2 Mechanical Devices .....	29
<b>5 Competitive Assessment .....</b>	<b>30</b>
5.1 Overview .....	30
5.2 Strategic Competitor Assessment .....	30

## Table of Contents

<b>6</b>	<b>Atacand (candesartan)</b>	<b>33</b>
6.1	Overview	33
6.2	Efficacy	33
6.3	Safety	34
6.4	SWOT Analysis	35
6.5	Forecast	36
<b>7</b>	<b>Appendix</b>	<b>37</b>
7.1	Bibliography	37
7.2	Abbreviations	39
7.3	Methodology	41
7.4	Forecasting Methodology	41
7.4.1	NYHA Class Segmentation of Total Prevalent CHF Population	41
7.4.2	Diagnosed CHF Population	42
7.4.3	Drug-Treated CHF Population	43
7.4.4	Patient Population Breakdown: HF-REF versus HF-PEF	43
7.4.5	Treatment of HF-REF versus HF-PEF	43
7.4.6	General Pricing Assumptions	44
7.4.7	Drugs Assumptions	45
7.4.8	Generic Erosion	45
7.5	Physicians and Specialists Included in this Study	46
7.6	Survey of Prescribing Physicians	47
7.7	About the Authors	48
7.7.1	Author	48

Table of Contents

7.7.2 Global Head of Healthcare.....48

7.8 About GlobalData .....49

7.9 Disclaimer .....49

SAMPLE



## Table of Contents

### 1.1 List of Tables

Table 1: Leading Causes of CHF .....	12
Table 2: Other Causes of CHF .....	12
Table 3: Compensatory Mechanisms in CHF .....	13
Table 4: Typical Symptoms of CHF .....	18
Table 5: NYHA Classification of HF Based on Symptoms and Physical Ability of Patients .....	19
Table 6: ACC/AHA Classification of HF Based on Disease Progression .....	20
Table 7: NYHA Classification of HF Based on Symptoms and Physical Activity of Patients.....	20
Table 8: Commonly Used Treatment Guidelines for CHF .....	22
Table 9: Most Prescribed Drugs for CHF by NYHA Class in the Major Markets, 2012.....	24
Table 10: Select Products Used for CHF Treatment, 2012 .....	32
Table 11: Product Profile – Atacand.....	34
Table 12: Atacand SWOT Analysis, 2012 .....	35
Table 13: Global Sales Forecasts (\$m) for Atacand, 2012–2022 .....	36
Table 14: Physicians Surveyed, By Country.....	47

### 1.2 List of Figures

Figure 1: Worsening HF Leading to Chronic Disease .....	15
Figure 2: Drug-Treatment Rates of Patients Diagnosed with CHF in the 7MM, by NYHA Class .....	23



## Introduction

## 2 Introduction

### 2.1 Catalyst

The chronic heart failure (CHF) market is a mature market that has been slowly overtaken by generic drugs, and more branded products are expected to lose market exclusivity during the next few years. GlobalData predicts that the major global barriers that will play a crucial role in narrowing the global growth of the CHF market over the forecast period include the sparsely populated CHF pipeline and an increasing number of generic competitors in a market that is already heavily laden with generic drugs. However, the market entry of entry of Novartis' LCZ-696, the first novel, branded CHF drug to enter the market in five years, will noticeably enhance the overall market size during the forecast period. LCZ-696 is currently being evaluated in a trial for patients with heart failure with reduced ejection fraction (HF-REF), but if clinical trial data continue to demonstrate the drug's efficacy in patients with heart failure with preserved ejection fraction (HF-PEF), and it gains approval for use in this population, it will be the first drug to show efficacy in this largely underserved patient population. In addition, increased use of MRAs over the forecast period in all seven major markets (7MM) will contribute to the increase in the global CHF market size.

### 2.3 Upcoming Related Reports

- GlobalData (2013). Chronic Heart Failure – Current and Future Players. GDHC1007FPR

## Introduction

- GlobalData (2013). Chronic Heart Failure – United States Drug Forecast and Market Analysis to 2022. GDHC1056CFR.
- GlobalData (2013). Chronic Heart Failure – United Kingdom Drug Forecast and Market Analysis to 2022. GDHC1061CFR.
- GlobalData (2013). Chronic Heart Failure – France Drug Forecast and Market Analysis to 2022. GDHC1057CFR.
- GlobalData (2013). Chronic Heart Failure – Germany Drug Forecast and Market Analysis to 2022. GDHC1058CFR.
- GlobalData (2013). Chronic Heart Failure – Italy Drug Forecast and Market Analysis to 2022. GDHC1059CFR.
- GlobalData (2013). Chronic Heart Failure – Spain Drug Forecast and Market Analysis to 2022. GDHC1060CFR.
- GlobalData (2013). Chronic Heart Failure – Japan Drug Forecast and Market Analysis to 2022. GDHC1062CFR.
- GlobalData (2013). Diovan (Chronic Heart Failure) – Forecast and Market Analysis to 2022. GDHC1087DFR.
- GlobalData (2013). Coreg (Chronic Heart Failure) – Forecast and Market Analysis to 2022. GDHC1089DFR.
- GlobalData (2013). Bystolic (Chronic Heart Failure) – Forecast and Market Analysis to 2022. GDHC1090DFR.
- GlobalData (2013). LCZ-696 (Chronic Heart Failure) – Forecast and Market Analysis to 2022. GDHC1091DFR..

## Appendix

### 7.8 About GlobalData

GlobalData is a leading global provider of business intelligence in the Healthcare industry. GlobalData provides its clients with up-to-date information and analysis on the latest developments in drug research, disease analysis, and clinical research and development. Our integrated business intelligence solutions include a range of interactive online databases, analytical tools, reports, and forecasts. Our analysis is supported by a 24/7 client support and analyst team.

GlobalData has offices in New York, Boston, London, India, and Singapore.

### 7.9 Disclaimer

All Rights Reserved.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publisher, GlobalData.